

REMARKS

Claims 1, 3, 6, 8, 11, 12, and 16-18 have been amended. Claim 2 has been canceled. Claims 1 and 3-20 remain in the application.

Objection is made to the drawings for failure to illustrate connections between elements recited in claims 12 and 17. The specification and claims 12 and 17 have been amended to clarify the recitation of the various connections. Also, note that the signal (Q2) input to the latch 432 is defined as a PHASE precursor signal at page 9, lines 26, 27 and is generated as described at page 10, lines 17-20, as amended above. Further, signals Q1 and Q2 are defined as first precursor signals at page 9, lines 26 and 27. Accordingly, the applicants respectfully request withdrawal of this objection.

Objection is made to claims 3, 8, and 18 for various informalities. The amendments to these claims remove the basis for this rejection and the applicants request that it be withdrawn.

Claims 1, 2, 6, 7, 11, and 16 are rejected for anticipation by US Patent 5799048. The rejection is moot with respect to claim 2 which has been canceled. The rejection is traversed with respect to claims 1, 6, 7, 11, and 16 for the following reasons.

Claim 1 is drawn to a method for phase detection by an exclusive-OR gate in a half-rate phase detector using a clock signal synthesized from an incoming data signal in which the output of a multiplexer that combines precursor signals is provided "only to an input of the exclusive-OR gate." This limitation is clearly shown in FIG. 4 where the output of the multiplexer 423 is connected only to the I1 input of the exclusive-OR gate 425 and to no other inputs. Claims 6, 11, and 16 include similar limitations.

The advantage of a single connection to the output of the multiplexer is that the loading on the multiplexer is limited to a single gate input, thereby permitting it to operate at high speed with reduced power consumption. In the '048 patent, however, the output of the multiplexer 36 drives four inputs (to components 16, 18, 40, and 42), thereby increasing the load on the multiplexer, which reduces its speed and increases its power consumption. Accordingly, the '048 patent does not anticipate claims 1, 6, 7, 11, and 16.

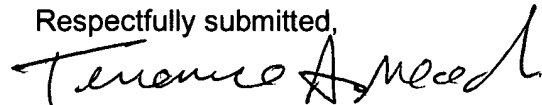
In view of these amendments and remarks, it is submitted that the application is in condition for allowance, early notice of which is solicited..

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Respectfully submitted,



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